

Amendments to the Claims:

A clean version of the entire set of pending claims (including amendments to the claims, if any) is submitted herewith per 37 CFR § 1.121(c)(3). This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently amended) A medical imaging system comprising:
acquisition means ~~2 intended to acquire for acquiring~~ a volume of ~~3D three-dimensional (3D)~~ digital data ~~3DV~~ comprising at least one object of interest ~~4;~~
means ~~[[4]]~~ for segmenting a region of interest comprising said object of interest ~~[[1]]~~
within said volume ~~3DV, of 3D data into a segmented region of interest;~~
means ~~[[3]]~~ for displaying a ~~2D two-dimensional (2D)~~ representation ~~2DR~~ of said
volume ~~3DV of 3D data~~ and said segmented region of interest ~~RS;~~
means ~~[[5]]~~ for calculating determining a sub-regions map ~~CSR₄, CSR~~ within said
segmented region ~~of interest [[1,]]~~; and
correction means ~~6 intended to exclude sub-regions from for correcting the segmented
said region of interest by means of using~~ said sub-regions map ~~CSR₄, CSR~~.
2. (Currently amended) A The medical imaging system as claimed in Claim 1,
characterized in that wherein said means ~~[[5]]~~ for calculating a determining the sub-regions
map comprise sub-means ~~11 means~~ for calculating watersheds intended to form a first sub-
regions map ~~CSR₄~~ within the segmented region of interest RS.
3. (Currently amended) A The medical imaging system as claimed in Claim 2,
characterized in that wherein said means ~~[[5]]~~ for calculating a determining the sub-regions
map further comprise sub-means ~~10 means~~ for calculating a map of distances ~~CD~~, said sub-
means ~~11 means~~ for calculating watersheds being intended to form forming the first sub-
regions map ~~CSR₄~~ from based on said map of distances ~~CD~~.

4. (Currently amended) A The medical imaging system as claimed in Claim 2, characterized in that wherin said means for calculating a determining the sub-regions map [[5]] further comprise merging sub-means 12 intended to merge means for merging sub-regions of the first map CSR₁ in order to form a second sub-regions map CSR₂.

5. (Currently amended) A The medical imaging system as claimed in Claim 1, further comprising:
characterized in that it comprises control means [[7]] for enabling a user to select the sub-regions to be excluded.

6. (Currently amended) A The medical imaging system as claimed in Claim 1, characterized in that wherin said system is able to update said means for displaying the 2D representation display updates which in order to take into account the effects of corrected segmented region of interest provided by the correction means.

7. (Currently amended) A The medical imaging system as claimed in Claim 1, further comprising:
labeling means [[8]] for labeling the sub-regions map CSR₁, CSR₂ of the segmented region of interest RS.

8. (Currently amended) A device for correcting a segmented region RS, intended configured to be integrated in a medical imaging system intended to acquire which acquires a volume of data and to segment a region of interest around an object of interest [[1]] within said volume of data, said device comprising:

means [[5]] for calculating a sub-regions map CSR₁, CSR₂ within the segmented region RS; and
collection correction means 6 intended to exclude for excluding sub-regions of said region of interest RS by means of based on said sub-regions map.

9. (Currently amended) A The medical imaging apparatus as claimed in Claim 1, further comprising:

a medical imager comprising means 22 for forming [[a]] the volume of 3D digital data representing an environment including an the object of interest 4, a medical imaging system 20 as claimed in Claim 4.

10. (Currently amended) A method of correcting a segmented region of interest derived from a volume of three-dimensional (3D) digital data comprising at least one object of interest, the method comprising:

a step of calculating a regions map CSR₄,CSR within the segmented region RS; and a correction step intended to exclude excluding sub-regions of the segmented region RS by means of based on the sub-regions map CSR₄,CSR.

11. (Cancelled)